# 2,4-Octadienal

**Inchi:** InChI=1S/C8H12O/c1-2-3-4-5-6-7-8-9/h4-8H,2-3H2,1H3/b5-4+,7-6+
**InchiKey:** DVVATNQISMINCX-YTXTXJHMSA-N
**Formula:** C8H12O
**SMILES:** CCCC=CC=CC=O
**Mol. weight [g/mol]:** 124.18

## Physical Properties

| Property code | Value | Unit | Source |
|---|---|---|---|
| gf | 77.40 | kJ/mol | Joback Method |
| hf | -59.59 | kJ/mol | Joback Method |
| hfus | 19.17 | kJ/mol | Joback Method |
| hvap | 40.04 | kJ/mol | Joback Method |
| log10ws | -2.16 | | Crippen Method |
| logp | 2.098 | | Crippen Method |
| mcvol | 116.550 | ml/mol | McGowan Method |
| pc | 3059.17 | kPa | Joback Method |
| rinpol | 1116.00 | | NIST Webbook |
| rinpol | 1124.00 | | NIST Webbook |
| rinpol | 1113.00 | | NIST Webbook |
| tb | 439.42 | K | Joback Method |
| tc | 627.33 | K | Joback Method |
| tf | 211.76 | K | Joback Method |
| vc | 0.461 | m3/kmol | Joback Method |

## Temperature Dependent Properties

| Property code | Value | Unit | Temperature [K] | Source |
|---|---|---|---|---|
| cpg | 225.21 | J/mol×K | 439.42 | Joback Method |
| cpg | 276.76 | J/mol×K | 596.01 | Joback Method |
| cpg | 267.58 | J/mol×K | 564.70 | Joback Method |
| cpg | 257.87 | J/mol×K | 533.38 | Joback Method |
| cpg | 247.60 | J/mol×K | 502.06 | Joback Method |
| cpg | 236.72 | J/mol×K | 470.74 | Joback Method |
| cpg | 285.43 | J/mol×K | 627.33 | Joback Method |

| | | | | |
|---|---|---|---|---|
| dvisc | 0.0002188 | Pa×s | 439.42 | Joback Method |
| dvisc | 0.0002838 | Pa×s | 401.48 | Joback Method |
| dvisc | 0.0003886 | Pa×s | 363.53 | Joback Method |
| dvisc | 0.0005725 | Pa×s | 325.59 | Joback Method |
| dvisc | 0.0009343 | Pa×s | 287.65 | Joback Method |
| dvisc | 0.0017693 | Pa×s | 249.70 | Joback Method |
| dvisc | 0.0042123 | Pa×s | 211.76 | Joback Method |

# Sources

| | |
|---|---|
| **Crippen Method:** | https://www.chemeo.com/doc/models/crippen_log10ws |
| **Joback Method:** | https://en.wikipedia.org/wiki/Joback_method |
| **McGowan Method:** | http://link.springer.com/article/10.1007/BF02311772 |
| **NIST Webbook:** | http://webbook.nist.gov/cgi/cbook.cgi?ID=R604430&Units=SI |
| **Crippen Method:** | http://pubs.acs.org/doi/abs/10.1021/ci990307l |

# Legend

| | |
|---|---|
| **cpg:** | Ideal gas heat capacity |
| **dvisc:** | Dynamic viscosity |
| **gf:** | Standard Gibbs free energy of formation |
| **hf:** | Enthalpy of formation at standard conditions |
| **hfus:** | Enthalpy of fusion at standard conditions |
| **hvap:** | Enthalpy of vaporization at standard conditions |
| **log10ws:** | Log10 of Water solubility in mol/l |
| **logp:** | Octanol/Water partition coefficient |
| **mcvol:** | McGowan's characteristic volume |
| **pc:** | Critical Pressure |
| **rinpol:** | Non-polar retention indices |
| **tb:** | Normal Boiling Point Temperature |
| **tc:** | Critical Temperature |
| **tf:** | Normal melting (fusion) point |
| **vc:** | Critical Volume |

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